

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

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LINEAR TECHNOLOGY CORPORATION

Plaintiff,

v.

MONOLITHIC POWER SYSTEMS, INC.

Defendant.

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C.A. No. 06-476 GMS

**ORDER CONSTRUING THE TERMS OF U.S. PATENT NOS. 5,481,178 AND 6,580,258**

**A. Preliminary Considerations**

The court has reviewed the district court's claim construction order in the *Linear Technology Corporation v. Impala Linear Corporation* litigation, Administrative Law Judge Harris' ("ALJ Harris") claim construction in *In the Matter of Certain Voltage Regulator Circuits, Components Thereof, and Products Containing Same*, ITC Inv. No. 337-TA-564 ("*In re Voltage Regulator Circuits*"), and the ITC's September 24, 2007 opinion in *In re Voltage Regulator Circuits*. Each party has advocated for the court to adopt various portions of one or all of the above-cited opinions/orders, but not the entirety of any one of the decisions. The parties conducted themselves during the *Markman* hearing as though they were before an appellate court. The bulk of the parties' arguments was not focused on the proper construction of the claim terms based on the canons of claim construction but, rather, whether this court should adopt the district court's claim construction in *Impala* or whether the court should adopt ALJ Harris' construction in *In re Voltage Regulator Circuits*. Indeed, much of the parties' briefs are also devoted to why the *Impala* court's or ALJ Harris' decision was correct or in error. Sitting in judgment of a sister court or an ALJ decision,

however, is not the most efficient way for this court to spend its limited time and resources during a claim construction proceeding. In addition, it raises the principles of collateral estoppel and stare decisis, which the court discusses before turning its attention to construing the disputed claim terms of the patents-in-suit.

The doctrine of collateral estoppel bars relitigation by the same parties of matters decided by a judgment on the merits in a suit. *In re Freeman*, 30 F.3d 1459, 1465 (Fed. Cir. 1994). A party is estopped only if “(1) the issue is identical to one decided in the first action; (2) the issue was actually litigated in the first action; (3) resolution of the issue was essential to a final judgment in the first action; and (4) the party against whom estoppel is invoked had a full and fair opportunity to litigate the issue in the first action.” *Id.* (citation omitted). Here, the defendant raises the issue of collateral estoppel, arguing that the plaintiff had a full and fair chance to assert its claims in the *Impala* litigation and should be bound by the claim constructions it advocated in that case. In *Impala*, the district court issued its claim construction ruling and granted summary judgment of non-infringement. The parties appealed the summary judgment order of non-infringement, and the Federal Circuit revised some of the district court’s claim construction, vacated the judgment of non-infringement, and remanded the case for further consideration. *Linear Technology Corp. v. Impala Linear Corp.*, 379 F.3d 1311 (Fed. Cir. 2004). The parties, however, settled prior to the district court’s determination on remand.

It is clear that the plaintiff meets three of the requirements of estoppel, namely that certain claim terms are identical to those in dispute in the *Impala* litigation, the claim terms were actually litigated in that litigation, and the plaintiff here had a full and fair opportunity to litigate claim construction in that litigation. What remains unclear is whether resolution of the disputed claims

in *Impala* was essential to a final judgment in that litigation, because the parties settled prior to a final infringement determination. The Federal Circuit has yet to provide clear guidance on the issue,<sup>1</sup> and the case law is split, with some district courts determining that a prior claim construction has no preclusive effect, *see Kollmorgen Corp. v. Yaskawa Electronic Corp.*, 147 F. Supp. 2d 464, 466-67 (W.D. Va. 2001), and some determining that estoppel applies, *see TM Patents, L.P. v. Int'l Bus. Machines Corp.*, 72 F. Supp. 2d 370, 379 (S.D.N.Y. 1999).

At this time, the court is not willing to afford preclusive effect to the *Impala* court's ruling. That being said, the court notes that, consistent with the principle of stare decisis, or the rule of adherence to judicial precedents, it should give consideration to the claim construction order from the *Impala* case, even though it is not bound to follow that ruling. *See United States v. Weaver*, 267 F.3d 231, 247 (3d Cir. 2001) (considering and following the guidance of sister courts of appeals in making its determination with respect to the issue involved); *Sunset Fin. Res., Inc. v. Redevelopment Group V, LLC*, 417 F. Supp. 2d 632, 651 (D.N.J. 2006) (same). Accordingly, although the arguments made to, and the decisions of, the *Impala* court, ALJ Harris, and the ITC do not preclude either of the parties in the present case from advancing new positions on claim construction, the court will give due consideration to those decisions as part of its independent claim construction analysis.<sup>2</sup>

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<sup>1</sup> The Federal Circuit has indicated that it is unwilling to afford preclusive effect to a claim construction in a first lawsuit, which settled prior to the court reaching a final judgment with respect to infringement or invalidity. *See R.F. Delaware, Inc. v. Pacific Keystone Tech., Inc.*, 326 F.3d 1261 (Fed. Cir. 2003).

<sup>2</sup> Determining if, and when, to follow a sister court's decision with respect to claim construction raises additional concerns of forum shopping and the public notice function of a patent. This is especially true when the parties to a prior litigation concerning the same patents settle or otherwise dispose of their claims before the Federal Circuit has the opportunity to

## B. Claim Construction

After having considered the submissions of the parties and hearing oral argument on the matter, IT IS HEREBY ORDERED, ADJUDGED, and DECREED that, as used in the asserted claims of U.S. Patent Nos. 5,481,178 (the “‘178 patent”) and 6,580,258 (the “‘258 patent”):

1. The term “switching voltage regulator” is construed to mean “a device or circuit that receives an input voltage and produces a predetermined and constant output voltage by controlling the opening and closing of a switch.”<sup>3</sup>

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construe the patents, and determine infringement and validity. The following example illustrates the court’s concern: (1) a district court construes a patent in a way not favorable to one or both parties in the litigation; (2) the parties settle the litigation prior to a determination of claim construction, infringement, and validity on appeal, but do not request that the district court vacate its claim construction order; (3) the plaintiff, having received unfavorable constructions on the claim terms in dispute brings new litigation that includes one or more of the same patents at issue in the first litigation in another district court; and (4) during claim construction, the plaintiff makes either the same or different arguments, hoping for a better result in the new forum. As discussed in footnote 1, it is unclear whether the plaintiff would be precluded from making a different argument. Thus, the district court in the second litigation may construe the terms different than the district court in the first litigation, resulting in the patent having different metes and bounds in one forum than it does in the other. This result would appear to be inconsistent with the principles of claim construction (i.e. a claim term has only one meaning), the Supreme Court’s *Markman* decision, and the responsibility of the Federal Circuit, which is “to ensure that patents are uniformly and correctly interpreted, for ‘the limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public.’” *Inpro II Licensing, S.A.R.L. v. T-Moblie USA, Inc.*, 450 F.3d 1350, 1360 (Fed. Cir. 2006) (Newman, J., additional views) (quoting *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996)); see *Nilssen v. Motorola, Inc.*, 80 F. Supp. 2d 921, 924 n. 4 (N.D. Ill. 2000) (considering and respecting a first district court’s construction of the claim terms and noting the importance of uniformity in the treatment of a patent, but concluding that it is not compelled to reach the same constructions as the first district court to consider the terms).

<sup>3</sup> The court has considered the *Impala* court’s construction of this claim term and finds that it is supported by the intrinsic record of the patents-in-suit. Thus, the court will adopt the *Impala* court’s construction of this claim term. The plaintiff invites the court to further construe the term “predetermined,” which is not part of the claim term itself. As the parties well know, a patent infringement analysis entails two steps: “(1) claim construction to determine the scope of

2. The term “coupled” is construed to mean “circuit elements are coupled when a current path exists between them.”<sup>4</sup>
3. The term “output terminal” is construed to mean “a point or node of the switching regulator to which the load is coupled.”<sup>5</sup>
4. The term “load” is construed to mean “a device, circuit, or system coupled to the output terminal to which the regulator can supply current.”<sup>6</sup>
5. The term “a pair of synchronously switched switching transistors” is construed to mean “a pair of switching transistors are synchronously switched when they are driven out of phase to supply current at a regulated voltage to a load.”<sup>7</sup>

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the claims, followed by (2) determination of whether the properly construed claim encompasses the accused device.” *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998) (citations omitted). An invitation to “construe” the court’s construction comes dangerously close to the second step of a patent infringement analysis, which is the jury’s province in the present case. Accordingly, the court will not accept the plaintiff’s invitation to further “construe” the court’s construction of this claim term.

<sup>4</sup> “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (citing *Brown v. 3M*, 265 F.3d 1349, 1352 (Fed. Cir. 2001)). See footnote 3.

<sup>5</sup> See footnotes 3 and 4. In addition, the defendant’s construction invites the court to add a limitation to the claim, namely that the output terminal be “directly connected” to the load. The court finds no support in the intrinsic record for reading this limitation into the claim.

<sup>6</sup> See footnote 3. In addition, the defendant’s construction invites the court to add a limitation to the claim, namely the phrase “consumes electric power.” The court finds no support in the intrinsic record for reading this limitation into the claim. Indeed, the ‘178 patent specification indicates that the load does not always consume power. See ‘178 patent, col. 2, ll. 36-37 (“During such periods of time, the load does not consume power from the input power source.”).

<sup>7</sup> “[A] patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the

6. The term “regulated voltage” is construed to mean “a voltage having a controlled value.”<sup>8</sup>
7. The term “substantially at the regulated voltage” is construed to mean “a voltage allowing for, but not requiring greater variation in the regulated voltage.”<sup>9</sup>
8. The term “first state of circuit operation” is construed to mean “a state in which the switching transistors are both enabled for switching and are synchronously switched such that one transistor is ON and the other is OFF, with a varying duty cycle to maintain a regulated voltage at the output terminal.”<sup>10</sup>

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patent specification or file history.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (citations omitted). See ‘178 patent, col. 7, ll. 40-43 (“As used herein, the term ‘synchronously-switched switch’ refers to a switch including to switching transistors that are driven out of phase to supply current at a regulated voltage to a load.”) The parties disagreement centers around the term “driven out of phase,” which is not part of the claim term itself. As discussed in footnote 3, the court will not accept the parties’ invitation to further construe the definition of this claim term provided in the patent.

<sup>8</sup> See footnotes 3 and 4. In addition, the defendant’s construction invites the court to import a limitation from the specification into the claims, which is contrary to Federal Circuit precedent. See *Comarck Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998) (“[w]hile . . . claims are to be interpreted in light of the specification and with a view to ascertaining the invention, it does not follow that limitations from the specification may be read into the claims.”).

<sup>9</sup> See footnotes 3, 4, and 8.

<sup>10</sup> In making its ruling, the court rejects the defendant’s proffered construction, which would require a link between the load current and state of operation. While it is clear from the specification that the first state of circuit operation can be linked to the load current, see ‘178 patent col. 6, ll. 17-33, neither the claims nor specification require that it be linked. See *id.* at 8:61-9:3 (teaching that the circuit can periodically switch between the first and second states of circuit operation at low load current). In other words, a construction of the claim that requires a link between the load current and state of operation is too narrow. See footnotes 3 and 8.

9. The term “third circuit” is construed to mean “a circuit that is distinct from each of the first and second circuits in that not every electronic component of the circuits is the same.”<sup>11</sup>
10. The term “first control signal” is construed to mean “a control signal generated by the second circuit and used to affect the operation of other circuitry.”<sup>12</sup>
11. The term “second control signal” is construed to mean “a control signal generated by the third circuit and used to affect the operation of other circuitry.”<sup>13</sup>
11. The term “second state of circuit operation” is construed to mean “a state during which both switching transistors are OFF and current is supplied to the load by the output capacitor.”<sup>14</sup>
12. The term “threshold” is construed to mean “a predetermined level or value at which some change in circuit operation takes place.”<sup>15</sup>
13. The term “threshold fraction of maximum rated output current” is construed to mean “a predetermined level or value at which some change in circuit operation takes place, wherein

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<sup>11</sup> In making its ruling, the court rejects the defendant’s proffered construction, which would require the third circuit to be completely separate and distinct from the second circuit.

<sup>12</sup> In making its ruling, the court rejects the defendant’s proffered construction, which would require the first control signal to be completely separate and distinct from the second control signal.

<sup>13</sup> In making its ruling, the court rejects the defendant’s proffered construction, which would require the second control signal to be completely separate and distinct from the first control signal.

<sup>14</sup> See footnote 10.

<sup>15</sup> See footnote 4.

that level or value is a number greater than zero that represents the proportionality of two numbers, the proportion being relative to a rated maximum output current.”<sup>16</sup>

14. The term “a first means for generating a voltage feedback signal indicative of the voltage at the output” is a means plus function claim pursuant to 35 U.S.C. § 112(6). The function of the term is “generating a voltage feedback signal indicative of the voltage at the output.” The corresponding structure is “the combination of resistors 36A and 36B; the combination of resistors  $R_1$  and  $R_2$  and operational amplifier 602; and voltage feedback circuit 220,” and all equivalents thereof.<sup>17</sup>
15. The term “a second means for generating a first control signal . . . to maintain the output terminal at the regulated voltage” is a means plus function claim pursuant to 35 U.S.C. § 112(6). The function of the term is “generating a first control signal . . . to maintain the output terminal at the regulated voltage.” The corresponding structure is “the Figure 2 combination of drive circuit 20, transconductance amplifier 38, offset voltage  $V_{OS}$  76, reference voltage 37, current comparator 39, a feedback current  $I_{FB}$  between inductor L1 32 and current comparator 39, and constant off-time one-shot circuit 25, which outputs the signal; combinations having a pulse-width-modulator circuit or a variable off-time one-shot circuit, for example, circuit 240 of Figure 5; the Figure 7 combination of resistors  $R_{SENSE}$  and

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<sup>16</sup> It appears that the parties’ dispute with respect to this claim term centers around the term “threshold,” and that the parties agree on the construction of “fraction of maximum rated output current.” The court has already construed the term “threshold,” and will apply its construction to this term.

<sup>17</sup> See footnote 3.



$R_3$ ,  $V_{REF}$ ,  $V_{OS}$ , current comparator 39, one-shot circuit 245, off-time controller 250 and capacitor  $C_{CON}$ .”<sup>18</sup>

16. The term “a third means for generating a second control signal . . . the period of time having a duration which is a function of the current supplied to the load by the regulator” is a means plus function claim pursuant to 35 U.S.C. § 112(6). The function of the term is “generating a second control signal.” The corresponding structure is “the Figure 2 hysteretic comparator 74  $V_{REF}$ , current source  $I_1$  72, and logic circuits 66, 68, 69; the Figure 7 combinations such as the circuitry including 72, 74, 315, 316,  $V_{REF}$ , and related sleep control logic; or combinations such as those disclosed at column 16, lines 5-12.”<sup>19</sup>
17. The term “selected sleep mode current level” is construed to mean “a predetermined current level below which the regulator enters into a second mode of operation.”<sup>20</sup>

Dated: November 20, 2007

/s/ Gregory M. Sleet  
CHIEF, UNITED STATES DISTRICT JUDGE

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<sup>18</sup> The various corresponding structures set forth in this construction are alternative embodiments or equivalent structures for performing the function recited in the claim.

<sup>19</sup> See footnote 18.

<sup>20</sup> In making its ruling, the court rejects the defendant’s contention that this claim term is used interchangeably with the term “threshold fraction of maximum rated output current.”